

ON SOME OLD-WORLD LEPIDOPTERA HETEROCERA.

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(With 8 text-figures.)

I. Two small North African species of *Procris* were described by me and figured in *Seitz, Macrolep.* ii, pp. 7 and 9 (1909) as **Procris cirtana** Lucas 1849 and **P. orana** Austaut 1880. The latter identification was erroneous, there being nothing in the original description to guide me. The name *orana* was based by Austaut on a single ♀. The specimen is in the Oberthür collection of Zygaenids acquired by the late Lord Rothschild. It differs externally from what I called *orana* in Seitz in the large tuft placed in between the antennae and hanging on to the frons consisting to a large extent of long thin hairs and in the pronotum, coxae and underside of the femora being likewise hairy. In this the type of *orana* Aust. agrees perfectly with *cirtana*, of which *orana* is a synonym.

The *P. orana* Jordan nec Austaut (error of identification) is **P. algerica** Rothschild 1917. In this species the head is much more smoothly scaled, the long narrow scales between the antennae being truncate and not drawn out into a long point as in the case of a hair-scale, and the pronotum, coxae and femora are less hairy. The three segments of the ♂-antenna preceding the last segment are more or less formed as in *P. statices* L. 1758 and not pectinate as in *P. cirtana*. The type locality of *P. algerica* is Batna.

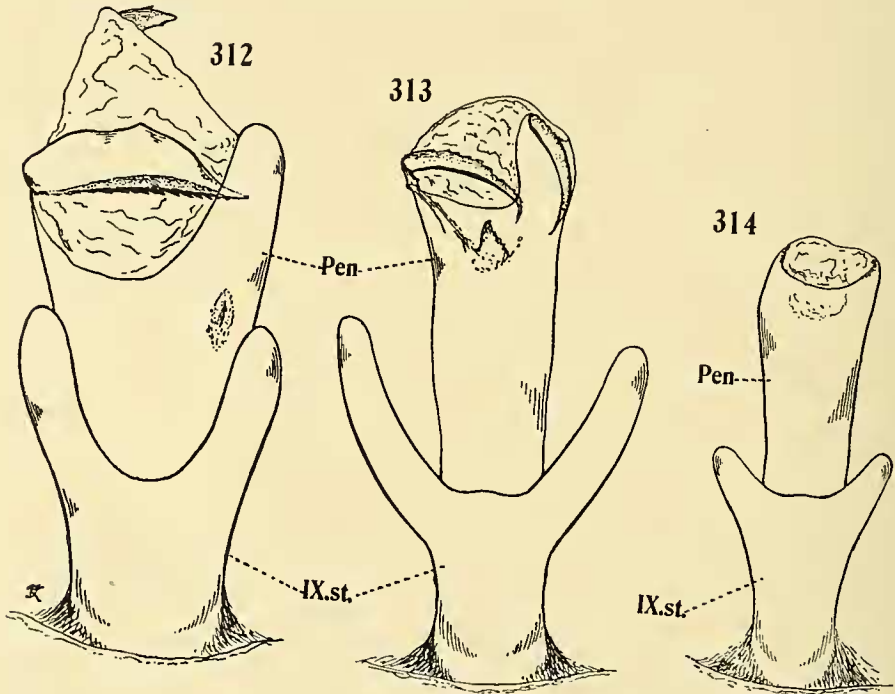
II. The genotypical species of the Oriental Saturnid genus **Cricula** Walker 1855 is **C. trifenestrata** Helfer 1837, a species which extends in a number of subspecies from Ceylon and North India to Lombok, Ceram and Halmahera. In North-East India a second species is found, **C. andrei** Jordan 1909, which differs in the early stages as well as in the imago. Among some duplicates of *Cricula* received from the Joicey collection there is a Sumatran ♂ that is similar to small North Indian examples of *C. andrei*, but stands apart in structure and less conspicuously in pattern, representing a new subspecies :

Cricula andrei sumatrensis subsp. nov. (text-fig. 313).

♂. In colour of upperside like pale ochraceous buff *C. a. andrei*, subcostal brown spot 3 mm. wide, brown line from near apex of forewing to abdominal margin of hindwing somewhat broader than in *C. a. andrei*. Underside for the greater part as brown as distal marginal border. Penis-sheath (Pen) much narrower than in *C. a. andrei* (compare text-fig. 312), its internal armature reduced, consisting of two very narrow scythe-like sclerites and a small triangle ; ventral portion of penis-funnel representing sternum IX two-horned as in *C. a. andrei*, but the horns longer and the undivided proximal portion narrower.

West Sumatra : Mt. Korintji, 7,300 ft., Aug.-Sept. 1921 (Messrs. Pratt),
1 ♂.

On Mt. Korintji, but at a somewhat lower altitude, also occurs a *Cricula* which I described in 1909 as *C. andrei elaezia*. I had at that time only a single ♂, from Java, of which the characteristic sternum IX was accidentally lost. We have now a series of both sexes, differing constantly from *C. andrei*. It is, in my opinion, the original Malayan *Cricula*, the commoner *C. trifenestrata* being a later arrival in the archipelago and *C. andrei* a still later immigrant from the North. The relationship will be better understood if we treat this Malayan insect as a distinct species, ***Cricula elaezia***, the range of which overlaps that of *C. andrei* in Sumatra. Sternum IX (text-fig. 314) is much smaller than in *C. andrei*, its horns are always short (though variable to some extent, as they also are in *C. andrei*), the penis-sheath remarkably narrow and without armature;



the specimen from which our figure is drawn is somewhat larger than those to which text-figs. 312 and 313 belong; the apical margin has minute traces of teeth, but there are no internal sclerites. In the ♀ the postvaginal plate (sternum VIII) is the same as in *C. andrei*, the margin bearing a shallow median sinus of somewhat variable breadth (text-fig. 316), whereas in *C. trifenestrata* there is always a narrow and deep median sinus (text-fig. 315), an incision rather than an excision. Both *C. andrei* and *C. elaezia* differ from *C. trifenestrata* also in the ♂-antennae the branches being longer. This is particularly noticeable in the distal segments, as shown in text-figs. 318 (*trifenestrata*) and 319 (*elaezia*) (both sketched from Javan examples, dorsal side, the cilia and sensory cones omitted).

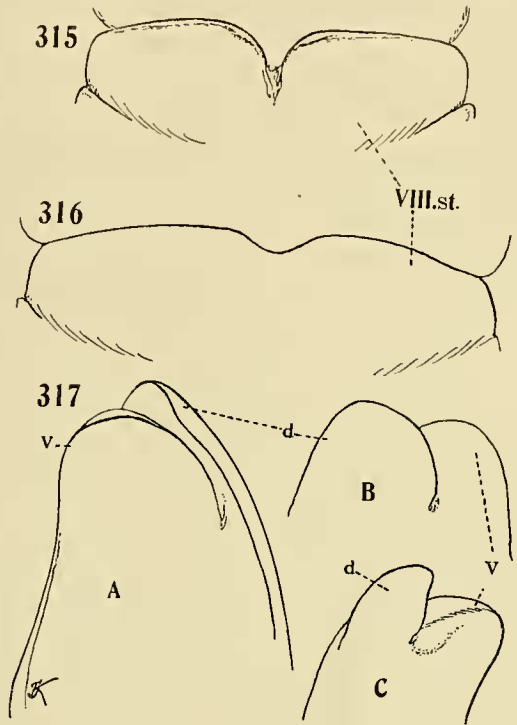
C. elaezia is dichromatic, as is *C. andrei*, the specimens being dark brown, with or without a vinaceous tint, or ochraceous buff, the dark individuals contrasting with *C. trifenestrata* from the same district. The species varies also geographically. The subspecies from Celebes will be described by Professor W. Roepke and is here omitted.

(a) *C. elaezia elaezia* Jordan 1909 (text-fig. 318).

♂. *Circula andrei elaezia* Jordan, Nov. Zool. xvi, p. 303 (1909) (Preanger, Java)

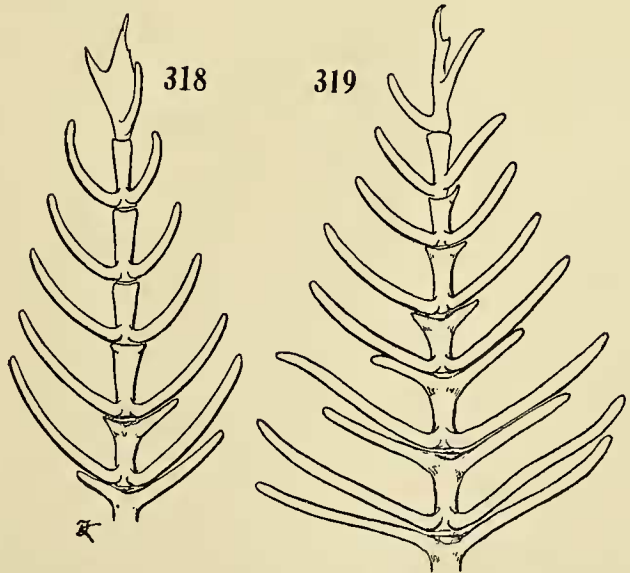
In the Rothschild collection from : Sumatra, Mt. Korintji, 5,000 ft., Aug.-Sept. 1921 (Messrs. Pratt), 3 ♂♂.—Western Java, Preanger, 1 ♂; Eastern Java, Nongkodjadjar, 4,000 ft., all months Dec. to June (J. P. A. Kalis, A.M.R.Wegner), 9 ♂♂, 7 ♀♀, Tengger, 5,000 and 6,000 ft., April and June (Kalis), 6 ♂♂, Ardjoeno, 4,500 ft., June (Kalis), 1 ♀, Waterfall Baoeng, 1,200 ft., July (Kalis), 1 ♀.—Bali, Batoeriti, 3,500 ft., June (Kalis), 4 ♂♂, Gilgit, 5,000 ft., April (Kalis), 2 ♂♂.

The usual 3 transparent spots on forewing of ♀ larger, at their basal side 1, 2 or 3 small transparent spots. 7 ♀♀ are more or less orange-ochraceous, 1 ♀ nearly tawny and 1 ♀ dark chestnut; none of the ♂♂ are as brightly coloured as the ♂♂ of *C. andrei andrei*. 3 of the Bali ♂♂ are tinted with vinaceous and 3 are orange buff, the vinaceous colour being more pronounced than in any of our specimens from Java and Sumatra.



(b) *C. elaezia buruensis* subsp. nov. (text-fig. 317).

♂. The single specimen from Buru agrees with dark examples from Java, differing only in the apex of the claspers: as in many *Heterocera* the clasper of *Cricula* is divided at the apex into two lobes, the two halves of the clasper being homologous with the two pleura of the abdominal segments. The apical lobes are more or less strongly rounded in *Cricula*; they lie closer



together in *buruensis* than elsewhere, the ventral lobe (v) is broader than the dorsal one (d), and the gap between them smaller than in other subspecies; the 3 figures give a ventral (A), dorsal (B) and lateral (C) view of the two lobes.

Central Buru : Kako Tagalago, 2,700 ft., May 1922 (Messrs. Pratt), 1 ♂.

EXPLANATION OF TEXT-FIGURES.

- Fig. 312. *Cricula andrei andrei* ♂, penis-sheath and sternum IX . . . p. 434
 313. *Cricula trifenestrata* ♂, the same p. 434
 314. *Cricula andrei sumatrensis* ♂, the same p. 434
 315. *Cricula trifenestrata* ♀, sternum VIII p. 435
 316. *Cricula andrei sumatrensis* ♀, the same p. 435
 317. *Cricula elaezia buruensis* ♂, ventral (A), dorsal (B) and lateral
 (C) aspects of elasper ; d, dorsal lobe ; v, ventral lobe . . p. 435
 318. *Cricula trifenestrata* ♂, distal segments of antenna, Java . . p. 435
 319. *Cricula elaezia elaezia* ♂, the same, Java p. 435
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